Louisiana/Mississippi Section
of the
Mathematical Association of America

NEWSLETTER—WINTER 2007
Volume 29. No. 2

Contents

Message from the Section Chair and Vice Chair

Dear Section Members:

We have been hard at work planning the Spring 2007 Section Meeting. It is scheduled for March 1-3, on the campus of Mississippi State University in Starkville, MS. While we have been preparing the conference, we would have been completely at sea without the invaluable and generous help of the section executive committee and we thank them enthusiastically.

Art Benjamin of Harvey Mudd College will be our main speaker Friday afternoon. Dr. Benjamin has graciously agreed to "entertain" the students during their Friday lunch banquet as well.

This year, we have a full slate of activities on Friday morning, including a welcome to the section for NExT fellows, new faculty, and people new to the section, a panel discussion on getting promotion and tenure, and a tour of the MSU Math Domain, student learning center and computer lab. Don't forget the popular student Integration Bee on Thursday evening and the Student Team Competition on Friday morning, both with cash prizes! Sign your students up early, particularly for the Integration Bee.

We also have planned a free reception for Friday evening featuring our famous Mississippi State University Cheese. Dinner will be on your own. Those of you who have not been to Starkville in a while will find a city much grown, with many new restaurants. We are hoping to have a very useful exhibits area, with many participating exhibitors. As always there will be lots of great talks and panel discussions, including a cross disciplinary panel on the training of mathematics teachers.

For complete meeting information see the conference website: http://maa.mc.edu/meeting/index.php . We will be adding details as they become available. To get the special conference rate at the Holiday Inn Express, be sure to make your reservations by February 20. See you there!!

Seth F. Oppenheimer and Vivien G. Miller

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         seth@math.msstate.edu

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         vivien@math.msstate.edu

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Letter from the Section Governor

The MAA-AMS Joint Mathematics Meeting was held in New Orleans in early January. Over the past year and a half, organizers and members had expressed some understandable misgivings about New Orleans as a host site, but things went smoothly and this turned out to be the largest joint meeting ever. It was gratifying to see so many friends and acquaintances in attendance. New Orleans is on the meeting schedule again for year 2011.

The Board of Governor's meeting was as usual long, informative, interesting, and sometimes tedious with the necessary reports and routine business. The Board heard final reports from the first three working groups in the continuous strategic planning process. The Round II groups on Students, Governance, and Membership will report next year. The Executive Committee will use these reports in considering possible policy or organizational changes, which will in turn be presented to the Board. The Committee on Sections presented a model for section bylaws, which was approved by the Board. It is recommended that a section update its bylaws about every ten years, so 2011 should be our review year.

This was my final meeting as Section Governor, but before I could quietly fade away, I was asked to serve on the national committee on SIGMAA's. A SIGMAA is a Special Interest Group of the MAA. These groups provide networking opportunities for people with interests in particular areas such as the History of Mathematics or Teaching Advanced High School Mathematics. A SIGMAA can sponsor special sessions at meetings, hold receptions, send newsletters, set up a web site, etc. There are currently eleven such groups, with BIO-SIGMAA being the newest. The national MAA web site gives more complete information.

It's been a rewarding three years as Section Governor. People at the national level and within our Section have been a joy to work with. Thanks to all of you for your support of the MAA.

Roger Waggoner
January, 2007

2006 OUTSTANDING TEACHING AWARD

Dr. Randall Wills received his B.A. from Lake Forest College in Mathematics and Physics in 1984. He was a member of the honor societies Phi Beta Kappa, Sigma Pi Sigma, and Sigma Xi, and he was named outstanding graduate in both mathematics and physics. He received his M.S. in Pure Mathematics from the University of Iowa in 1988, and his Ph.D. in Applied Mathematical Sciences in 1990. He has spent the last 17 years at Southeastern Louisiana University and is currently an Associate Professor of Mathematics. He has served on a number of MAA committees at the section level including Executive, Student Paper, Student Competition, Integration Bee, and Section NeXT. In addition he served as Louisiana Vice Chair of the Section in 2002 and was Chair of the Section in 2003. He has taught the full range of undergraduate courses from Intermediate Algebra to Advanced Calculus and Number Theory. He has published in a number of different fields including mathematical physics, linear algebra, as well as the teaching of mathematics.

Dr. Wills is recognized as an effective and successful teacher of mathematics. In the classroom, he does not use the traditional lecture method, but uses a modified Socratic method which emphasizes the understanding of concepts and problem solving. One of the things that have made Dr. Wills so effective in the classroom is his ability to come up with examples and problems which lead his students to a better understanding of the mathematical concepts he is trying to explain. In fact, students have commented upon his ability to explain difficult mathematical ideas and concepts in simple everyday terms. This is especially helpful to students taking service courses since they tend to have trouble grasping the mathematical ideas being presented. That this method has been successful is evidenced by several students placing in student competition at the LA/MS section meeting of the MAA, the Pi Mu Epsilon competition at Mathfest, and the Region VIII and State High School Science Fair. His ability to pose timely and relevant problems, his ability to make his students reach their highest potential, and his sense of humor, are just a few of the qualities that have made him such a successful teacher.

While at Southeastern, Dr. Wills has done a great deal to influence mathematics education at both the university and regional level. At the university level, Dr. Wills has been a leader in introducing reform methods and technology in the classroom. Dr. Wills has been successful at obtaining money to purchase both computers and software for use in the classroom. His efforts helped establish Southeastern's first computer lab which was aptly named the Mathematics Training Center. He has also been a leader in bringing the reform movement to Southeastern. In the early 1990s, he was involved with Dr. Keith Stroyan of the University of Iowa in an NSF sponsored calculus reform project. This involvement brought students both a new and innovative way to learn calculus as well as an introduction to the state of the art mathematical software *Mathematica.* Dr. Wills was also one of the first faculty at Southeastern to teach using the graphing calculator. His approach is to use technology in a manner which enhances mathematical thought instead of being a replacement for mathematical thought. In 2000, Dr. Wills was awarded a contract with the Casio Corporation to incorporate the Casiopaeia using the software *Maple* into the mathematics curriculum. Finally, Dr. Wills recently became involved with an NSF grant sponsored by the NSF on College Algebra Reform. Currently he is teaching 3 of the 6 reform college algebra course in connection with this grant. His efforts in the reform movement have led to several collaborations with colleagues at Southeastern, presentations at both regional and national

meetings, and publications in a wide variety of journals on the teaching of mathematics. Dr. Wills' efforts both inside and outside the classroom have won the respect and admiration of both his students and colleagues alike.

At the regional level, Dr. Wills has been very involved with LA/MS section of the MAA for the past 17 years. During that time, he has made numerous presentations and has been very involved with student participation at the meeting. He has sponsored students in the student paper competition as well as served as a judge for the competition many times. He has been a sponsor of the Southeastern team for several years, and was co-sponsor of the team in 1998 and 1999 when Southeastern won. In addition, Dr. Wills has contributed and graded problems for the student team competition for the past 10 years. In 2004, Dr. Wills was the Chair of the LA/MS Section of the MAA, and organized the section meeting that year. Southeastern received numerous compliments on the meeting, and a large part of this was due to the dedication and hard work of Dr. Wills. In addition to chairing the section in 2004, Dr. Wills remains active in the section by serving on several committees including the student paper committee and the Section NExT committee. Dr. Wills' work with the MAA at the regional level has helped make the LA/MS Section one of the best in the country.

Call for Nominations for the LA/MS MAA Section Outstanding Teaching Award

The Outstanding Teacher Award Committee seeks nominations for 2007. All departments are encouraged to make a nomination for this prestigious award. A completed application must accompany each nomination. A complete application consists of a nomination form, a narrative describing the nominee's extraordinary teaching success (limit 5 pages), evidence of the nominee's extraordinary teaching success (limit 3 pages), and up to five one page letters of recommendation two of which must come from the nominee's present or former students. For more details see http://maa.mc.edu/meeting/distinguished.html. **Completed applications must be received no later than February 16, 2007**. Please send applications to:

Dr. Randall Wills
SLU Box 10295
Hammond, LA 70402

Eligibility:

In order to be considered eligible for this award, a nominee must satisfy each of the following criteria:
1. Any nominee must be a college or university teacher assigned at least half-time during the academic year to teaching a mathematical science in a public or private college or university (from two-year college teaching through teaching at the Ph.D. level) in the United States or Canada. Those on approved leave (sabbatical or other) during the academic year in which they are nominated qualify if they fulfilled the requirements in the previous year.

2. Any nominee must have at least 5 years of teaching experience in a mathematical science.

3. Any nominee must be a member of the Mathematical Association of America.

Nominees will be judged on the following criteria:
1. Is the nominee widely recognized as extraordinarily successful in teaching? Teaching can be interpreted to be more than classroom teaching. It could also include activities such as preparing students for competitions, attracting students to become majors in a mathematical science or to become Ph.D. candidates, etc.

2. Has the nominee's teaching effectiveness been well documented?

3. Has the nominee had an influence in teaching beyond his/her own institution(s)?

This can take on many forms such as making a lasting impact on alumni, providing influence on the profession through curricular revisions in college mathematics teaching, making contributions to influential innovative books on the teaching of college mathematics, etc.

4. Has the nominee fostered curiosity and generated excitement about mathematics in his/her students?

To submit a name to the committee:
In order to be considered, nominations must be submitted on the Nomination Form. If you need a copy of the Nomination Form, you may get a copy of it from our section's webpage. Completed nomination packets should be sent to the Committee Chair. For consideration, a complete nomination packet must be received by the deadline.

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Section NExT

The Section NExT Committee is pleased to announce the new Section NExT Fellows for this year. They are **Don Liu** of Louisiana Tech, **John Perry** of the University of Southern Mississippi, and **Phillip Reppel** of Delgado Community College. These new Section NExT Fellows will be joined by the Fellows from last year in a program which includes special sessions on Friday morning and additional sessions throughout the meeting.

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Call for Papers

Several contributed paper sessions will be held in conjunction with the Spring section meeting. For any faculty or doctoral student interested in presenting a talk, send your name, school, title of talk and a short abstract (50 words or less) to the Section Vice-Chair, Dr. Vivien Miller (vivien@math.msstate.edu). Abstracts may be submitted electronically as an email attachment in WordPerfect, Microsoft Word or PDF format. The deadline for submission of abstracts is **February 16, 2007**.

Integration Bee

The annual integration bee will be held on March 1 from 7-9 p.m. Each institution may register up to 4 undergraduate students, and registration will be limited to 50. The deadline for registering is **February 23**. For more information, see the section website (http://maa.mc.edu/meeting/IntegrationBee/integration_online.html), or contact Dr. Randy Wills (rwills@selu.edu).

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Call for Student Papers

The LA-MS Section of the MAA will hold its annual Student Paper Competition at the Spring section meeting. Papers are solicited in two categories: graduate and undergraduate. The graduate category is limited to master's students. Ph.D. students are encouraged to submit for the contributed paper sessions listed above. Presentations at the meeting will be limited to 12 minutes.

Send your name, school, and a short abstract (50 words or less) to Dr. Robert Smith. Abstracts and papers should be submitted electronically to Dr. Smith (smith@math.msstate.edu) as an email attachment in WordPerfect, Microsoft Word or PDF format. The deadline for submission of abstracts is **February 16, 2007**.

A written paper of 6 pages or less must be received and include the author's name, institutional affiliation, faculty advisor and an e-mail address. Late entries will not be considered. Contact the Student Papers Committee Chair or the Rules for Student Papers for more details.

Prizes will be awarded in each category separately, with no more than 3 prizes in each. The number of prizes awarded shall be at the discretion of the judges, and shall be determined depending on the number and quality of the entries in each category. The amount of the prizes shall be as follows: first prize, $100.00, second, $75.00, and third, $50.00.

Each entry will be judged on the basis of both the written and oral presentation, with equal consideration given to both.

Student Paper Competition

The LA-MS Section of the MAA will hold it annual student Paper Competition at the Spring Section meeting. Send an electronic abstract and an electronic copy to Dr. Robert Smith (smith@math.msstate.edu) by **February 16**.

• There are two categories of papers: graduate and undergraduate. The graduate category is limited to master's students. Ph.D. students are encouraged to submit for the contributed paper sessions.

- Presentations at the meeting will be limited to 12 minutes.
- A written paper of 6 pages or less must be received and include:
  - o author's name
  - o institutional affiliation
  - o faculty advisor
  - o email address

- Prizes will be awarded in each category separately, with no more than 3 prizes in each.
- The number of prizes awarded shall be at the discretion of the judges, and shall be determined depending on the number and quality of the entries in each category.
- The amount of the prizes shall be:
  - o For undergraduate papers:
    - first prize, $100.00
    - second, $75.00
    - third, $50.00.
  - o For graduate papers:
    - first prize, $100.00
    - second, $75.00
    - third, $50.00.
- Each entry will be judged on the basis of both the written and oral presentation, with equal consideration given to both.
- All graduate papers are eligible for the graduate prizes.

Conference T-Shirts Are Available!
See the registration form for details.

Student Competition

The student team competition will be held at the Spring Section Meeting on **Friday, from 8:30 – 11:00 a.m.** The competition will be held in Memorial Hall, but parking will not be available there. As a result, sponsors will need to drop off their students at Memorial Hall, or the students must catch a shuttle bus from Wise Center at either 7:45 a.m. or 8:10 a.m.

CONTEST RULES

1. Each institution may send at most two teams, each team consisting of at most four students. The four students within one team may work together on problems. Students may not get help from people on other teams, even if from the same school.

2. Participants must be undergraduate students and currently enrolled at the institution they represent. This means that the student has not yet earned a bachelor's degree-- exceptions for students who are returning back to school to pursue a second bachelor's degree when the first degree was not in a mathematical area may be considered. A student from abroad who has completed training equivalent to an American bachelor's degree and who is taking solely graduate-level courses in a graduate program will be ineligible.

3. Each team must have a faculty sponsor.

4. Calculators comparable to the TI-85 without a symbolic manipulator will be allowed. Calculators with a symbolic manipulation capability, such as the TI-92 or TI-89+, are not allowed.

5. The contest will last 2 hours.

6. The Competition Committee is solely responsible for interpreting the rules and for ruling on any unforeseen situation.

7. Cash prizes will be awarded for 1st place ($100), 2nd place ($75), and 3rd place ($50) teams.

CONTEST PROBLEMS

The contest will consist of 2 groups of problems. Each team may choose any 5 problems from Group II.

Each problem will be worth 10 points. The problems are from the following areas:

Group I

Ten mandatory problems

Calculus (5 problems)
Abstract Algebra (1 problem)
Advanced Calculus (1 problem)
Differential Equations (1 problem)
Discrete Mathematics (1 problem)
Linear Algebra (1 problem)

Group II

Choose any 5 problems

Abstract and Linear Algebra (2 problems)
Advanced Calculus (2 problems)
Differential Equations (1 problem)
Multivariable Calculus (1 problem)
Geometry (1 problem)
Point-Set Topology (1 problem)
Probability/Statistics (1 problem)
Set Theory/Logic (1 problem)

To register a team (or teams), please fill out the application and return by February 16 2007, if possible (late registrations are accepted). Or, use the online application form located at http://sandbox.mc.edu/~travis/maa/compform_online.html

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Consider a Contribution in Support of LA/MS Student Activities.

The student activities include
- Integration Bee
- Student Team Competition
- Student Luncheon
- Student Paper Sessions

HOTEL INFORMATION

The Holiday Inn Express will serve as the official hotel for the Section Meeting. To reserve a room, please contact the hotel before the end of the day on **February 20, 2007**. In order to receive the conference rate, please mention the Mississippi State Mathematics Meeting.

Holiday Inn Express
110 Hwy 12
Starkville, MS 39759
(662) 324-0076

Special Rates:
   $70/night (King Room)
   $75/night (Double Room)

Please abide by the reservation deadline to receive the conference rate.

A Note about Our Main Speaker

Arthur Benjamin earned his B.S. in Applied Mathematics from Carnegie Mellon and his PhD in Mathematical Sciences from Johns Hopkins. Since 1989, he has taught at Harvey Mudd College, where he is Professor of Mathematics and past Chair. In 2000, he received the Haimo Award for Distinguished Teaching by the Mathematical Association of America.

His research interests include game theory and combinatorics, with a special fondness for Fibonacci numbers. Many of these ideas appear in his book (co-authored with Jennifer Quinn), "Proofs That Really Count: The Art of Combinatorial Proof," published by MAA. In 2006, that book received the Beckenbach Book Prize by the MAA. Professors Benjamin and Quinn are the co-editors of Math Horizons magazine, published by MAA.

Art is also a magician who performs his mixture of math and magic to audiences all over the world, including the Magic Castle in Hollywood. In 2005, Reader's Digest called him "America's Best Math Whiz."

LA/MS MAA Section
83rd Annual Meeting
Mississippi State
University
Starkville, Mississippi
March 1 – 3, 2007

Thursday Evening

Registration at Holiday Inn Express

Integration Bee at Allen Hall — 7:00 – 9:00

Friday

Registration in Wise Center Foyer — 8:00 – 4:00

Hospitality and Exhibits in Wise Center Foyer — 8:00 – 5:00

Student Team Competition in Memorial Hall — 8:30 – 11:00

Section NExT –   Welcome to the Section!
What can MAA do for you? — 8:00 – 9:00

Section NExT – How to get tenured and promoted — 9:00 – 10:00

Section NExT –
Tips on Building a Successful Research Program — 10:00 – 11:00

Tour of MSU Math Domain — 9:00 – 10:30

Student Luncheon — 11:30 – 12:30

Department Head Luncheon — 11:30 – 12:30

Opening Session and Invited Address
Arthur Benjamin of Harvey Mudd College — 1:15 – 2:30

Student Papers — 2:45 – 4:45

Contributed Papers — 2:45 – 4:45

Special Session
A Look at the MAA CRAFTY Subcommittee's
College Algebra Guidelines
Jenna Carpenter — 2:45 – 3:45

Saturday

Evening Party at Memorial Hall — 5:30 – 7:00

Hospitality Room at Holiday Inn Express — 9:00 until

Registration in Wise Center Foyer — 8:00 – 11:00

Liaison Breakfast in Wise Center — 7:30 – 8:30

Teaching Teachers to Teach Mathematics — 8:45 – 9:45

Outstanding Teaching Award Invited Address
Randall Wills — 10:00 – 11:00

Business Meeting — 11:15 – 12:15

Executive Committee Meeting — 12:30

STUDENT COMPETITION
REGISTRATION FORM

Name of Institution: _____

Name(s) of Faculty Sponsor: _____

Faculty Sponsor E-mail: _____

Names and Classifications of Team Members

TEAM I

	NAME	CLASSIFICATION
1		
2		
3		
4		

TEAM II

	NAME	CLASSIFICATION
1		
2		
3		
4		

*** You may also register by sending the above information by fax or e-mail to George Cochran
Email: cochran@math.lsu.edu (plain text only)
or gt_cochran@yahoo.com (attachments OK)
Dept. of Mathematics, LSU
Baton Rouge, LA   70803-4918
Phone #: (225) 388-1614
Fax #:   (225) 388-4276

Louisiana/Mississippi Section of the Mathematical Association of America

2007 Annual Meeting

March 1-3, 2007
Mississippi State University

Registration Form

Name:_____
(as it should appear on your name tag)

Email:_____

Affiliation:_____
(as it should appear on your name tag)

_____ Registration fee: Regular Advance = $20
                                    Late Registration = $25 (after February 15, 2007)
                                    Student = $5
                                    Free Student (Student registration is free for students from departments which are
                                              Institutional Partners of the Section)

_____ Institutional Partnership = $50

_____ T-Shirt: $15 each. Please indicate the quantity of each size ordered.

                        _____ S   _____ M   _____ L   _____ XL   _____ XXL   _____ XXXL

_____ Department Chairs Luncheon - $10 per plate. # tickets needed: _____
                                      11:30am – 12:30 pm – Friday, March 2

_____ Contribution to support student activities

_____ = Total

Please make check or money order payable to LA/MS section of MAA
Mail to: Seth F. Oppenheimer
P. O. Drawer MA
Mississippi State, MS 39762

The Committee on Sections is requesting that section secretaries answer specific questions in the annual section report. To assist our secretary in collecting this data, please make the appropriate selections regarding membership in the national MAA organization and regarding your current institutional affiliation. (Check all that apply.)

_____ MAA member   _____ Non-MAA member

_____ Two-year college faculty   _____ Four-year college faculty

_____ University faculty   _____ Business/industry/government employee

_____ Undergraduate student   _____ Graduate student

INSTITUTIONAL PARTNERSHIP APPLICATION
FOR THE
LOUISIANA-MISSISSIPPI SECTION OF THE MAA

Cost per academic year: $50

NAME OF INSTITUTION:_____

CONTACT PERSON:_____

CONTACT PERSON ADDRESS:

      _____

      _____

      _____

CONTACT PERSON E-MAIL:_____

CONTACT PERSON FAX:_____

Benefits of Institutional Partnership:
- Registration for their students at no additional cost for the annual section meeting
- Display space to promote the institution's graduate program at the section meeting

Make checks payable to: LA/MS SECTION OF THE MAA

Send completed form and check to the current section Chair:

    Seth Oppenheimer
    P. O. Drawer MA
    MSU, MS 39762